II. CLAIM AMENDMENTS

Please cancel claim 7 without prejudice, and amend claims 4 and 21 as set forth in the following listing of the claims.

1. (Previously presented) A communications system comprising:

a central node;

at least one remote node adapted to receive information transmitted from the central node over a broadcast link; and

a communications link comprising a time division multiple access link using bi-BPSK modulation, with one channel operating at a lower data rate to achieve a high signal-to-noise ratio, and another channel providing bandwidth-on-demand for transferring only user data, the communications link adapted to convey information from the remote node to the central node, the central node being adapted to dynamically tailor a remote node transmit power control and a bandwidth as requested by the remote node for conveying information over the communications link.

2. (Previously presented) The system of claim 1 wherein the broadcast link transfers link maintenance information over the one channel from the central node to each of the remote nodes.

3. (Original) The system of claim 2 wherein the link maintenance information is data used to maintain and manage the broadcast link and the communications link.

4. (Currently amended) The system of claim 1 wherein the broadcast link is a continuous transmission of link maintenance information from the central node to each of the at least one remote nodes.

5. (Original) The system of claim 1 wherein the communications link comprises a time division multiple access link using a multi-phase shift key waveform.

6. (Cancelled)

7. (Cancelled)

8. (Previously presented) The system of claim 1 wherein the one channel is adapted to provide slot timing, communications link synchronization and slot management functions, the slot management functions being independent of the other channel.

9. (Previously presented) The system of claim 1 wherein the one channel is adapted to provide all management functions for the communications link and the other channel is adapted to meet remote node bandwidth needs on demand.

10. (Cancelled)

11. (Previously presented) The system of claim 1 wherein the other channel is adapted to adjust wideband channel performance for transfer of user data on a slot by slot basis.

12. (Previously presented) A communications system comprising:

a central node adapted to transmit information over a broadcast link to at least one remote node; and

a time division multiple access link using bi-BPSK modulation to convey information from the remote node to the central node, the link including a first channel operating at a lower data rate to achieve a high signal-to-noise ratio to provide all link maintenance and management functions for the broadcast link and time division multiple access link, and a second channel adapted to operate at high data rates to transfer only user data and to meet bandwidth needs on demand of individual remote nodes.

13. (Original) The system of claim 12 wherein the first channel is an embedded high signal-to-noise ratio tracking channel.

14. (Original) The system of claim 12 wherein the second channel is adapted to provide a dedicated conduit for transmitting user data from the remote node to the central node.

15. (Original) The system of claim 12 wherein the second channel is a wideband channel adapted to be rate adjusted for an individual remote node to accommodate a required data bandwidth for the remote node.

16. (Original) The system of claim 15 wherein the time division multiple access link can adjust a performance of the wideband channel on a slot by slot basis.

17. (Original) A method of dynamically altering transmit power control and bandwidth transmission requirements of a remote node in a communications network including a plurality of remote nodes, the method comprising the steps of:

acquiring link management information transmitted from a central node to the remote node over a broadcast link;

requesting a new remote node transmit power control and a new transmit data bandwidth from the central node by sending a request from the remote node to the central node over a time division multiple access communications link using a multi-phase shift key waveform, wherein a high signal-to-noise ratio channel in the link is used to provide the remote node transmit power control and a wideband channel in each slot of the link is adapted to be rate adjusted to meet the transmit data bandwidth needs of the remote node on demand; and

implementing the change one remote node slot time subsequent to the request.

18. (Cancelled)

19. (Previously presented) The method of claim 17 wherein the step of implementing the change further comprises the step of dynamically configuring the wideband channel to accommodate the new transmit data bandwidth on a slot by slot basis.

20. (Previously presented) The method of claim 17 further comprising the step of dynamically assigning one or more slots to a new remote node entering the network.

21. (Currently amended) The system of claim 1 further comprising the high signal to noise ratio channel used to maintain TDMA slots timing, link synchronization and slot management, wherein the slot management ~~being~~ is independent of a data transport channel, where the data transport channel is a separate user channel used as a dedicated conduit for transport of user data that can be dynamically adapted to provide different power[[,]] and rate control at each slot to provide optimal performance based on user needs and a link environment.

22. (Previously presented) The method of claim 17 further comprising including only two separate channels in each slot, one channel being the high signal to noise ratio channel and the other being the wideband channel.

23. (Previously presented) The method of claim 22 further comprising maintaining TDMA slot timing, link synchronization

and slot management on the high signal-to-noise ratio channel and transporting data only on the wideband channel.